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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/684,657	10/15/2003	Frampton E. Ellis	081498-0306614	3226
47604	7590	03/01/2007	EXAMINER	
DLA PIPER US LLP			PRENTY, MARK V	
P. O. BOX 9271				
RESTON, VA 20195				
			ART UNIT	PAPER NUMBER
			2822	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		03/01/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/684,657

Applicant(s)

ELLIS, FRAMPTON E.

Examiner

MARK PRENTY

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 21-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 21-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>December 13, 2006</u> . | 6) <input type="checkbox"/> Other: _____ |

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This Office Action is in response to the amendment filed on November 13, 2006.

Claims 1, 2 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent 6,287,949 to Mori et al. (Mori).

As to independent claim 1, Mori discloses a microchip (see the entire patent, including the Fig. 3A disclosure together with the Figs. 5A-5B disclosure), comprising: a plurality of dies 32, at least two of the dies made by a separate fabrication process (see the Fig. 3A disclosure) and assembled into a package with the separate die sections connected directly; wherein at least one edge of at least one of the dies has any shape or pattern that is not a straight line (see the Figs. 5A-5B disclosure).

Claim 1 is thus rejected under 35 U.S.C. 102(b) as being anticipated by Mori.

As to dependent claim 2, Mori's separate die sections 32 are connected by at least one interconnect that is widened compared to the interconnect lines of the die (see Fig. 5A's interconnect 35).

Claim 2 is thus rejected under 35 U.S.C. 102(b) as being anticipated by Mori.

As to dependent claim 23, Mori's at least one edge has a pattern of straight lines in alternate directions (see Fig. 5B).

Claim 23 is thus rejected under 35 U.S.C. 102(b) as being anticipated by Mori.

Claims 1, 2 and 21-23 are rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent 6,440,775 to Khoury.

As to independent claim 1, Khoury discloses a microchip (see the entire patent, including the Fig. 3 disclosure), comprising: a plurality of dies 117 and 119, at least two of the dies made by a separate fabrication process and assembled into a package with

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the separate die sections connected directly; wherein at least one edge of at least one of the dies has any shape or pattern that is not a straight line.

Claim 1 is thus rejected under 35 U.S.C. 102(b) as being anticipated by Khoury.

As to dependent claim 2, Khoury's separate die sections are connected by at least one interconnect that is widened compared to the interconnect lines of the die (see column 5, lines 54-58).

Claim 2 is thus rejected under 35 U.S.C. 102(b) as being anticipated by Khoury.

As to dependent claim 21, Khoury's at least one edge has a saw tooth pattern

Claim 21 is thus rejected under 35 U.S.C. 102(b) as being anticipated by Khoury.

As to dependent claim 22, Khoury's saw tooth pattern is of two or more straight lines.

Claim 22 is thus rejected under 35 U.S.C. 102(b) as being anticipated by Khoury.

As to dependent claim 23, Khoury's at least one edge has a pattern of straight lines in alternate directions.

Claim 23 is thus rejected under 35 U.S.C. 102(b) as being anticipated by Khoury.

Claim 24 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over United States Patent 6,440,775 to Khoury.

As to claim 24, Khoury discloses a microchip (see the entire patent, including the Fig. 3 disclosure), comprising: a plurality of dies 117 and 119, at least two of the dies made by a separate fabrication process and assembled into a package with the separate die sections connected directly; wherein at least one edge of at least one of

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the dies has any shape or pattern that is not a straight line, wherein said at least one edge has a pattern of straight lines in alternate directions.

Claim 24 further recites "wherein said at least one edge has a pattern of straight diagonal lines that alternate in direction."

Khoury does not illustrate such diagonal lines but Khoury discloses, "It should be noted that other shapes are possible for interlocking edges...so long as the interlocking edges have shapes that intermesh to allow for one IC module to positively lock/mate with a second IC module to form a structural connection" (column 4, lines 13-18).

Claim 24's pattern is thus either implicitly anticipated by Khoury or at the very least it would have been obvious to one skilled in the art in view of Khoury's disclosure at column 4, lines 13-18.

Claim 24 is thus rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Khoury.

The applicant's arguments are moot in view of the new grounds of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Registered practitioners can telephone the examiner at (571) 272-1843. Any voicemail message left for the examiner must include the name and registration number of the registered practitioner calling, and the Application/Control (Serial) Number. Technology Center 2800's general telephone number is (571) 272-2800.

Mark Prentz
Mark V. Prentz
Primary Examiner